

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S):	CHEUNG, ET AL.	§	ATTORNEY
		§	DOCKET NUMBER: HESI.112275
SERIAL NUMBER:		§	
		§	
FILING DATE:	CONCURRENTLY HEREWITH	§	ART UNIT:
		§	
FOR:	SYSTEM AND METHOD FOR	§	
	ANALYZING AND IMAGING	§	
	THREE-DIMENSIONAL	§	EXAMINER:
	VOLUME DATA SETS USING	§	
	A THREE-DIMENSIONAL	§	
	SAMPLING PROBE	§	
		§	

INFORMATION DISCLOSURE STATEMENT

MAIL STOP PATENT APPLICATIONS

Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each of these documents, except reference numbers 10 and 36, was provided during prosecution of U.S. Application Serial No. 09/119,635 and therefore, is not required under 37 C.F.R. § 198(d). Copies of reference numbers 10 and 36 are enclosed.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

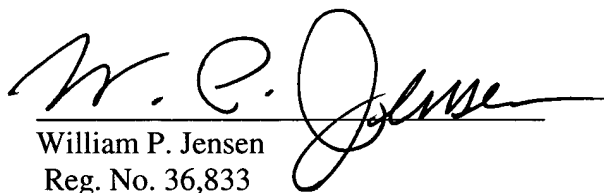
The filing of this information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56(b).

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited by or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. & 120.1138 OG 37, 38 (May 19, 1992).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

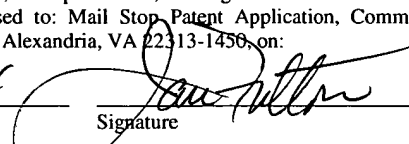
Applicants do not believe that a fee is due with this submission, however, the Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment to Deposit Account No.19-2112.

Respectfully submitted,


William P. Jensen
Reg. No. 36,833

Date: March 23, 2004

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CERTIFICATE OF MAILING 37 C.F.R. 1.10	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service, postage prepaid, as Express Mail, mailing label number EL529856645US, in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:	
<u>3-23-04</u> Date	 Signature

PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket No.: HESI.112275	Serial Number:
	Applicant: Cheung, et al.	
	Filing Date: Concurrently Herewith	Group:

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF. NO.	PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUBCLASS	FILING DATE
	1.	4,467,461	08/21/84	Rice, et al.	367	70	01/05/81
	2.	4,751,643	06/14/88	Lorensen, et al.	364	414	8/4/86
	3.	4,984,157	01/08/91	Cline, et al.	367	413	09/21/88
	4.	5,410,250	04/25/95	Brown, Hugh K.	324	309	09/28/93
	5.	5,455,896	10/03/95	Takamura, Teiji	395	119	11/29/94
	6.	5,563,949	10/08/96	Bahorich, et al.	364	421	12/12/94
	7.	5,574,836	11/12/96	Broemmelsiek, Raymond M.	395	127	1/22/96
	8.	5,586,082	12/17/96	Anderson, et al.	367	73	03/02/95
	9.	5,659,691	08/19/97	Durward, et al.	395	329	9/23/93
	10.	5,734,384	03/31/98	Yanof, et al.	345	424	10/15/96
	11.	5,759,044	06/02/98	Redmond, Scott	434	301	7/6/95
	12.	5,798,982	08/25/98	He, et al.	367	73	03/02/95
	13.	5,852,447	12/22/98	Hosoya, et al.	345	468	05/17/96
	14.	5,930,730	07/29/99	Marfurt, et al.	702	16	9/13/96
	15.	5,966,672	10/12/99	Knupp, Daniel F.	702	16	07/28/97
	16.	6,083,162	07/04/00	Vining, David J.	600	407	9/27/95
	17.	6,144,383	11/07/00	Lichtenbelt, et al.	345	419	05/30/97

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

EXAMINER INITIAL	REF. NO.	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	18.	WO 96/18915	06/20/96	PCT	G01V	28		

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	

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EXAMINER INITIAL	REF. NO.	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, RELEVANT PAGES, PLACE OF PUBLICATION)
	19.	Antosh, Nelson, "Oil Now Showing at a Theater Near You," September 19, 1997, 2 pages, <i>Houston Chronicle</i> , Business Section C.
	20.	"CogniSeis Turns Up the Volume with the Latest Release of VoxelGeo," Press Release, April 30, 1997 (printed 3/27/98), 2 pages
	21.	Compton, Mark, "A Dream Comes True," June 1997, 3 pages, IRIS Universe #26
	22.	Gatti, C., D. Marini, P. Minardi, "An Interactive System for Volume Analysis," published 1993, Scientific Visualization Advanced Software Techniques, Section 3.2.
	23.	GeoQuest, IESX "Integrated Multisurvey Interpretation," May 3, 1998, 17 pages, printed from Schlumberger website www.slb.com/oilf/geoquest/iesx/iesx.html .
	24.	"GeoQuest at a glance," printed May 3, 1998, 3 pages, printed from Schlumberger website www.slb.com/ar94/html/geoquest.html .
	25.	"GeoQuest Enhances GeoViz and Voxels for OCTANE," 1997 (printed 5/3/98), 3 pages, printed from GeoQuest/Schlumberger website www.sgi.com/Products/hardware/desktop/partners/octane/geoquest .
	26.	Goldman, Jon and Roy, Trina M., "The Cosmic Worm," July 1994, pp. 12-14, <i>IEEE Computer Graphics and Applications</i> , Vol. 14, No. 4.
	27.	Gras, Rutger, "Automated 3-D Software Interprets Fault Systems," May 1998, pp. 81-83, <i>World Oil</i> .
	28.	Hutchinson, Suzi, "FZAP! 1.0 Offers Automated Fault Picking," printed March 27, 1998, 5 pages, UserNet – May/June 1997, printed from Landmark Graphics website www.lgc.com/UserNet/mj97/mj97*4.html .

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	29.	Koen, A. D. "Tough Economics Remold Production R & D Campaign," July 5, 1993, pp. 14-18, <i>Oil & Gas Journal</i> .
	30.	Peloso, Andy, "Open Vision 4.0," printed March 27, 1998, 8 pages, UserNet – May/June 1997, printed from Landmark Graphics website www.lgc.com/UserNet/mj97/mj97-3.html .
	31.	Pepke, Eric "Animation and the Examination of Behavior Over Time," 1995, pp. 203-238, <i>Computer Visualization Graphics Techniques for Scientific and Engineering Analysis</i> , Chapter 7.
	32.	Petzet, G. Alan, "Interactive 3D Visualization Speeds Well, Reservoir Planning," November 24, 1997, pp. 82-83 (copied on 1 page), <i>Oil & Gas Journal</i> .
	33.	Scheier, Robert L., "Creating a Cash Gusher," April 21, 1997, pp. 76-78, <i>Computerworld</i> (www.computerworld.com).
	34.	Shamban, Adam, Jones, Gary and Wright, Carole, "EarthCube 1.2: New Functionality and Work Flows," printed March 27, 1998, 8 pages, UserNet – May/June 1997, printed from Landmark Graphics website www.lgc.com/UserNet/mj97/mj97-5.html .
	35.	"Texaco Announces the Opening of New 3-D Visualization Center in Houston," November 11, 1997, p. 11111454, <i>Business Wire</i> .
	36.	"Texaco E&P Center Allows Visual Probe Of 3D Data Volumes," June 1, 1998, pp. 46-47 (copied on one page), <i>Oil & Gas Journal</i> .
	37.	Thomas, Kate, "Oil Biz Gushes Patents," February 16, 1998, pp. 1, 26, <i>The National Law Journal</i> .
	38.	"VoxelGeo," printed March 27, 1998, 5 pages, Paradigm Geophysical Broadband Solutions in Depth, printed from CogniSeis website www.cogniseis.com/voxelgeo.html .
	39.	Zeitlin, Michael, "3-D Seismic Visualization," March 12, 1998, 1 page, presentation given at the Emerging Technologies Group Dinner Meeting, printed from www.hougeo.org/meet0398.htm .

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[illegible]

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